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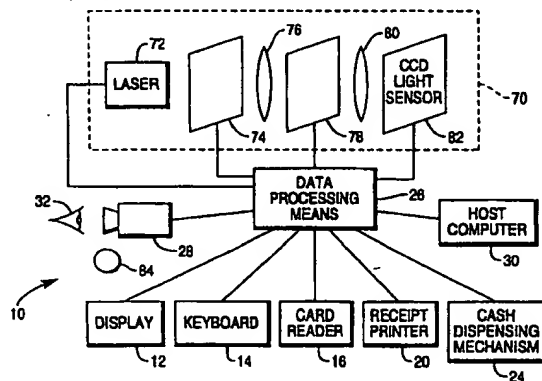
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(54) **User verification system**

(57) The invention relates to a biometric verification system for use e.g. in an ATM (10). When a user wishes to use the ATM, the system scans a biometric feature of the user such as the iris of one of his eyes (32), and produces a diffraction pattern of that feature. The diffraction pattern is compared against a reference matched spatial filter in a Vander Lugt optical correlator (70). If the diffraction pattern and the matched spatial filter match then a correlation dot is produced, and the user is authorized to use the ATM (10).

For a user to be able to use ATMs that comprise this verification system, he has first to use a recording system that produces the reference matched spatial filter of the biometric feature.

FIG. 3



EP 0 878 780 A3



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EUROPEAN SEARCH REPORT

Application Number
EP 98 10 6657

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.8)
X	GB 2 270 586 A (MYTEC TECHNOLOGIES INC) 16 March 1994 (1994-03-16) * abstract; figure 1 * * page 4, line 3 - page 5, line 11 * * page 7, line 19 - page 9, line 19 * * page 9, line 27 - page 10, line 7 * * page 11, line 24 - page 12, line 7 * * page 12, line 16 - page 14, line 18 * * page 17, line 9 - page 18, line 18 * * page 19, line 16 - page 20, line 17 *	1-7	G07C9/00 G07F7/10 G06K9/00 G06K9/74
Y	---	8,9	
Y	WO 96 41297 A (MYTEC TECHNOLOGIES INC) 19 December 1996 (1996-12-19) * abstract; figure 1 * * page 4, line 21 - page 6, line 9 *	8,9	
A	US H1060 H (LAZICH M) 5 May 1992 (1992-05-05) * abstract; figures * * column 3, line 42 - line 63 *	1-4	
A	WO 97 05578 A (MYTEC TECHNOLOGIES INC) 13 February 1997 (1997-02-13) * abstract; figures 1A,2 * * page 5, line 21 - line 23 *	1,8	G07C G07F G06K
A	EP 0 585 141 A (HAMAMATSU PHOTONICS KK) 2 March 1994 (1994-03-02)		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26 October 2000	Examiner Buron, E
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 10 6657

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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26-10-2000

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 2270586	A	16-03-1994	CA	2105926 A	12-03-1994
WO 9641297	A	19-12-1996	US	5761330 A	02-06-1998
			AU	5889196 A	30-12-1996
US H1060	H	05-05-1992	NONE		
WO 9705578	A	13-02-1997	US	5712912 A	27-01-1998
			AU	4710996 A	26-02-1997
			US	5737420 A	07-04-1998
			US	6002770 A	14-12-1999
EP 0585141	A	02-03-1994	JP	6076128 A	18-03-1994
			US	5815598 A	29-09-1998